

**REMARKS**

Please reconsider the present application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering the present application.

**I. Disposition of Claims**

Claims 1-38 are pending in this application. Claims 1, 9, 17, 25, and 33 have been amended.

**II. Claim Amendments**

Independent claims 1, 9, 17, 25 and 33 have been amended to incorporate the limitation that a natural polymer and an amine are mixed in a well fluid in an absence of a bentonite and a cross-linkant. No new matter has been added by way of these amendments.

**III. Rejection(s) under 35 U.S.C § 112**

Claims 1-8, 17-24, and 33-38 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. Particularly, the language of "effective" in the claims was held to be unclear. For the reasons set forth below, withdrawal of the rejection is respectfully requested.

As disclosed in the present application, the well fluid composition of the present invention is formed by adding a miscible amine to a polymer system so as to increase the

thermal resistivity of the composition. Thus, one of ordinary skill in the art will understand that an effective amount of miscible amine is an amount that can bring about a desired increase in thermal resistivity. **[Jeff, should I add this limitation expressly in the claims?]** For example, if it is desired that the thermal resistivity of the solution be increased by 1 degree, then an effective amount of miscible amine would be an amount of miscible amine that when added to the solution raises the thermal resistivity of the solution by 1 degree. Accordingly, the claims are not indefinite, and withdrawal of the § 112 rejection is respectfully requested.

#### **IV. Rejection(s) under 35 U.S.C § 102**

##### U.S. Patent No. 4,461,985

Claims 1-38 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,461,985 issued to Glass, Jr. (hereinafter "Glass"). For the reasons set forth below, the rejection is respectfully traversed.

The present invention is directed to a well fluid formed by mixing a natural polymer (e.g., hydroxyethyl cellulose (HEC)) and a miscible amine (e.g., triethanol amine (TEA)). A well fluid having such a composition has increased thermal resistivity because the composition increases the thermal durability of natural and natural derivative polymers used in downhole applications. Amended independent claims 1, 9, 17, 25, and 33 of the present application require that a well fluid in accordance with the present invention be formed by mixing a natural polymer and a miscible amine *in the absence of a bentonite and a cross-linkant*.

Glass, in contrast to the present invention, is directed to HEC-bentonite blends.

With respect to the invention disclosed in Glass, “[t]he key to the invention is . . . to beneficiate bentonite-water mixtures used in oil well drilling.” Glass, column 5, lines 23 – 28. Glass further states, “[b]asically the invention is the discovery that certain blends of water-soluble components can be employed to beneficiate bentonite slurries . . . and that such component blends are effective in beneficiating bentonite under highly saline conditions.” Glass, column 6, lines 23 – 31. For example, in Glass, example 14, which was relied on in the Office Action of February 13, 2003, refers to a solution formed in the presence of a 5.5% by weight saline and 14.4 lbs/bbl of bentonite. Glass, column 23, lines 52 – 55.

Thus, it is clear that Glass is solely related to the treatment of well fluids containing bentonite or a blend thereof. However, amended independent claims 1, 9, 17, 25, and 33 of the present application explicitly require that a well fluid in accordance with the present invention comprise a mixture formed *in the absence of a bentonite*. Accordingly, Glass fails to disclose, or otherwise teach, each and every limitation of the invention as claimed.

In view of the above, Glass fails to show or suggest the present invention as recited in amended independent claims 1, 9, 17, 25, and 33. Thus, amended claims 1, 9, 17, 25, and 33 are patentable over Glass. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

U.S. Patent No. 4,780,223

Claims 1-3, 5, 6, 8-11, 13, 14, 16-19, 21, 22, 24-34, and 36-38 were rejected under 35 U.S.C. § 102(b) as being anticipated by Baranet et al. (hereinafter “Baranet”).

For the reasons set forth below, the rejection is respectfully traversed.

Baranet, in contrast to the present invention, is directed to the use of amines to stabilize *cross-linked* natural polymers. Baranet, Abstract. More specifically, Baranet discloses that aqueous solutions of certain cross-linking agents are stabilized by the inclusion of a small but stabilizing amount of an amine. Baranet, column 3, lines 55 – 61. Per Baranet, the use of a cross-linker is preferred because of its “delayed” or “retarded” cross-linking activity. Baranet, column 4, lines 18 – 21. Moreover, all the examples disclosed in Baranet involve the presence of a cross –linked or –linker agent. As noted above, amended independent claims 1, 9, 17, 25, and 33 of the present application explicitly require that a well fluid composition in accordance with the present invention comprise a mixture formed *in the absence of a cross-linkant*. Accordingly, Baranet fails to disclose, or otherwise teach, each and every limitation of the invention as claimed.

In view of the above, Baranet fails to show or suggest the present invention as recited in the amended independent claims 1, 9, 17, 25, and 33. Thus, amended claims 1, 9, 17, 25, and 33 are patentable over Baranet. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

U.S. Patent No. 6,227,295

Claims 1, 2, 7-10, 15-18, 23-28, and 33-36 were rejected under 35 U.S.C. § 102(e) as being anticipated by Mitchell et al. (hereinafter “Mitchell”). For the reasons set forth below, the rejection is respectfully traversed.

Mitchell, in contrast to the present invention, is directed to a well fluid

composition that comprises in part a cross-linkable polymer and a cross-linking agent. Mitchell, Abstract. Like Baranet, Mitchell discloses examples that all involve the presence of a cross-linkable or -linking agent. As noted above, amended independent claims 1, 9, 17, 25, and 33 of the present application explicitly require that a well fluid composition in accordance with the present invention comprise a mixture formed *in the absence of a cross-linkant*. Accordingly, Mitchell fails to disclose, or otherwise teach, each and every limitation of the invention as claimed.

In view of the above, Mitchell fails to show or suggest the present invention as recited in amended independent claims 1, 9, 17, 25, and 33. Thus, amended claims 1, 9, 17, 25, and 33 are patentable over Mitchell. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

**IV. Conclusion**

Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 05542.008002).

Date: 5/13/03

Respectfully submitted,

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